Fitzgerald River National Park. Thanks are also extended to Matthew Cavana for drawing the maps.

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## FROM FIELD AND STUDY

Black Honeyeaters feeding on ash — Good rainfall and abundant wildflowers occurred throughout the Pilbara and Murchison districts in 1984. This resulted in many sightings of the Black Honeyeater (*Certhionyx niger*) which is highly nomadic but not commonly seen except in dry inland areas.

During August through to November, I recorded these birds in areas north of Meekatharra and Nanutarra, the Murchison River north of Geraldton and numerous other areas in the wheatbelt east and north of Perth. At three locations, I and others travelling with me witnessed unusual behaviour associated with these birds.

At Bilyuin Pool on the Upper Murchison on 9-10 August, I noticed a male Black Honeyeater coming to ground near an old campfire, to be quickly followed by two females. The male, after landing and hopping around the ash, flew up into a nearby Mulga tree. It then flew to various trees in the vicinity, returning frequently to the old fire place. The females, in quite a determined manner, picked up small nodules of grey ash and swallowed them, flying away several times with small pieces, but returning to pack more into their beaks. I watched these birds for about an hour. The grey ash was from a Mulga wood fire (Acacia sp.) about three weeks old; recent rains had put a slightly pitted crust on the surface.

Next morning I returned to the same spot to find four females and one male bird coming in and picking up nodules of ash from the remains of the fire. I saw the male pick up and swallow ash twice, but generally he seemed content to fly around in the area and occasionally land to pick without swallowing. No female seemed perturbed by other females while the male was present.

At a site approximately three kilometres west of Murchison Bridge at Galena, similar behaviour was seen on 12 September, With me were about twenty members of the Bird Observers Club of Victoria. We were about to break camp when two Black Honeyeaters - one male and one female, flew into an Allocasuarina tree above us. They then landed at the edge of our still glowing Mulga wood fire and started to pick up ash. This was apparently too hot for them as they then flew to the remains of an old fire bed, which I had used some five weeks previously. The female, observed by everyone present, was seen picking up and swallowing small nodules of ash. She then picked up several more small pieces and flew back to a branch. After about two minutes she also swallowed these.

Later, at the Ross Graham lookout on the Murchison River near Kalbarri, approximately 40 kilometres from the previous sighting, again near the remains of an old campfire, a pair of Black Honeyeaters (male and female) flew into the branches of a tree above our heads. The female flew down to the ash

bed, to be joined shortly afterwards by another female. Both began picking up grey ash in a similar manner as on the previous occasions and continued to do so during the time we were there. The male did not eat ash, but remained in the vicinity - flying from branch to branch in the tree and then down to the ash.

These normally shy birds, seemed compelled by their need for the ash and ignored the presence of humans and vehicles. On a visit to the same areas a few weeks later, I found the birds still around, but much quieter and more secretive and may have been nesting.

Samples of ash from the first campsite at Bilyuin Pool were analysed courtesy of Mr. B.H. Goldspink of the Division of Plant Research, Department of Agriculture. The analysis (Table 1) has provided somewhat of a puzzle. The nodules of ash were found to be extremely high in calcium (some 20% dry basis) and gave off a large amount of gas when acid was added suggesting the sample was contaminated with limestone (calcium carbonate). However, as there is no limestone in the area (that I am aware of) and burning of lime would produce an oxide not a carbonate where did the calcium come from?

Table 1: Analysis of ash sample from Bilyuin Pool.

NUTRIENT										
% DRY BASIS							ppm DRY BASIS			
N	Р	К	S	Ca	Mg	Na	Fe	Mn	Cu	Zn
	0.13	0.16		20.15	0.60	0.19		186	19.3	29.0

The eating of ash by the female birds suggests that they were building up their calcium levels prior to nesting and egg-laying. Further observations are required on this ash-eating behaviour.

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Some reptiles and frogs recorded in Stokes National Park — This park is located on the coast west of Esperance and is centred by Stokes Inlet. There is no published herpetofaunal data on the park. The following list has been compiled from my personal records and substantially enlarged during a recent visit by W.A. Naturalists' Club members in April, 1984. Nomenclature follows Storr (1983 List of W.A. Frogs and Reptiles. 4th Edition. Unpubl.).

Frogs: Heleioporus eyrei, Limnodynastes dorsalis, Pseudophryne guentheri, Litoria cyclorhynchus.

Reptiles: Phyllodactylus marmoratus, Aprasia repens, Delma australis, D. fraseri, Pygopus lepidopodus, Pogona m.minor, Cryptoblepharus virgatus clarus, Ctenotus labillardieri, Egernia kingii, Hemiergis peronii, Leiolopisma trilineatum, Lerista distinguenda, Menetia greyii, Morethia obscura. Tiliqua occipitalis, T.r.rugosa, Varanus rosenbergi, Python spilotus imbricatus, Notechis coronatus, N.curtus, N.scutatus occidentalis, Pseudonaja a.affinis, Rhinoplocephalus nigriceps.

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Barn Swallows at Learmonth — Between 0640H and 0711H on 25 November 1983, we observed 3 Barn Swallows (*Hirundo rustica*) in company with 36 Welcome Swallows (*Hirundo neoxena*) on electricity wires near buildings at Learmonth RAAF Base, 34.5 km south of Exmouth.

On one of the Barn Swallows, the deep russet throat, edged with a thick black band, and white breast were clearly observed from 15m with 10  $\times$  40 binoculars. The other 2 Barn Swallows had light fawn throats with incomplete black throat bands, but were distinctly whiter below than the accompanying Welcome Swallows.

This is the second published record of Barn Swallows in the vicinity of Exmouth, 4 having been observed at the prawn factory, 13.3 km north of Learmonth in September, 1982 (Bourke, 1983: W.A. Nat. 15:168).

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